



Specialist Consultants

Do I Need Them?

What Do They Do?

How Much Do They Cost?

As well as your architect, there will be other experienced professionals that you will need during the design and construction stages of your project.

You should consider your architect to be the leader of your project's **design team**. While their most important role is to provide you with their building and design expertise, another part of your architect's role is to help you co-ordinate all the other members of that design team to ensure they are all working towards a common goal. **Metroworks Architects** can provide this co-ordinating service to ensure your project follows a trouble-free path.

This guide provides a list of specialist consultants that are usually required for residential renovations and new home projects and sets out their roles and responsibilities to the project and to you.

Typical Specialist Consultants Required for Residential Projects

- ▶ Land Surveyor
- ▶ Geotechnical Engineer
- ▶ Structural Engineer
- ▶ Cost Planner
- ▶ Building Surveyor
- ▶ Other Consultants



LAND SURVEYOR

Boundary Re-establishment & Detailed Site Analysis

Your **land surveyor** will typically be engaged very early on in the design process - some clients even arrange to have a site survey done prior to meeting with their architect. Their role is to use specialised technology and equipment to accurately measure the site and its surrounds. This allows your architect to better understand and make the most of the landscape when designing your new house or renovation.

For any residential project, the **land surveyor** will provide documentation that will show the features and levels of the site - such as contours, significant tree and existing buildings on or near the site. They will also locate adjacent buildings, windows and the private open space of neighbouring sites. This is all valuable information that your architect will use, to design the new house or renovation in a way that will prevent overlooking and overshadowing of or by your neighbours.

Where the design is likely to extend the house to on or within one metre of your site boundary, the **land surveyor** will also need to undertake a boundary re-establishment survey for you. This type of survey is additional to the features and levels survey described above and includes very accurate information on the location of the Title boundaries of your site. You may be surprised to know that it is very rare to find a boundary fence positioned exactly on the actual Title boundary!

GEOTECHNICAL ENGINEER

Soil Testing & Analysis

Before your structural engineer can start their detailed design work, they will require a **geotechnical engineer** to visit the site to do a soil test and report back on underground conditions. Although their role on your project may seem short and sweet, it is a very important one.

It is your **geotechnical engineer** who provides advice on the bearing pressure of your soil which will ultimately determine the footing type and depth required for your project. In the case of renovation projects, they will also inspect existing footings and report their condition and size back to the structural engineer so that they can check their suitability for the new work proposed.

Their report forms part of the submission for building approval and is a required part of the process. Regardless, it is best to arrange for your **geotechnical engineer** to undertake the soil testing during the early project stages, to ensure the correct footing type is allowed for in design and in cost estimates. You don't want to be in the situation where the structural design is more-or-less complete and the project cost plan is on-budget, only to find that a later soil test reveals you will need extra-deep, pier and beam footings!

1.6									
		REFUSAL TO HAND AUGER							
BOREHOLE NO.:		2	METHOD:	H	LOCATION:	See attached figure			
FILL		Admixed sand, clay & rubble, dark grey / brown	MD		D				
SOIL PROFILE		Silty SAND, pale grey / pale brown	MD		SM bec M				
		Very sandy CLAY / very clayey SAND, light brown / light grey / orange, medium plasticity	VS/H		SM/M				
		2.0m FINISH							
Moisture Condition		Consistency	Relative Density		Testing				
= Dry		VS = Very Soft	WL = Very Loose		PP = Pocket Penetrometer				
= Moist		S = Soft	L = Loose		VSH = Vane Shear				
= Wet		F = Firm	MD = Moderately Dense		DCP = Dynamic Cone Penetrometer				
Standing Water Level		St = Stiff	D = Dense						
Seepage Emerging		VSr = Very Soft							



STRUCTURAL ENGINEER

Design & Certification of Structural Systems

Your **structural engineer** is one of the most important specialist consultants required on your project - after all, it is their job to make sure the building will stand up! They will design the structural components of your new home, such as floor joists, bearers, rafters, lintels, columns, etc. They ensure that each component works together to provide a steady and stable structural frame around which the beautiful parts of your home will be constructed.

Working very closely with your architect (and eventually your builder as well), your **structural engineer** will design and document each component and prepare details of how they connect to other parts of the structure. For renovation projects, they assess the ability of the existing structure to take newly proposed loads and will also help your architect to design how the old and new parts of the structure will connect. Towards the end of the design stages of the project, your **structural engineer** will certify their work - as required for building approval.

COST PLANNER

Construction Cost Estimates & Budget Planning

In the past, most new home builders and renovators relied on the tender process - getting quotes from three or four builders once the project is designed - to get an idea of how much their project was likely to cost. That process is now seen to be an ineffective, time-wasting method of budget assessment. You will often find that your budget and design brief do not coincide - everyone has a "wish list" of things they would love to include in their new house!

Waiting until everything is designed and documented just the way you like it before seeking builders prices may find them come in either over or under your budget. If over-budget, you'll be disappointed that you can't have the project you had fallen in love with, and if under-budget you may want to put in some other items from your wish list. Either way, you will most likely face additional cost for your architect and/or your structural engineer to re-design and re-document the project.

Rather than put yourself through all that angst, it is much more productive to engage a **cost planner** to prepare one or more construction cost estimates during the early design stages of your project (either during Concept Design or Design Development), so that you have time to make adjustments as necessary. Many people even engage a pre-selected builder that they know and trust to undertake this specialist work for their project.

Description	L	W	H	AMT	Unit	Rate	Total
Lighting in Addressed area				1	1000		800
Work of Window to 1000				1	2000		2000
Painting							
Plasterboard to walls				311	7.7		2392
Plasterboard to Ceilings				402	7.7		3095
Square set to ceiling				360	7.7		2772
to perimeter walls P2				338	7.7		2602
Plasterboard to P2.5 walls and P2.2 included				50	7.7		385
to area				50	7.7		385
from wall paneling supply and							
				140	7.7		1078
perimeter panels				140	7.7		1078
to Brickwork and cement				32	7.7		246
Roofing							
Roofing to walls ceilings new				1	2000		2000
and storage				1	8000		8000
Columns & columns				1	8000		8000
Deck and fence				1	2000		2000
Ground Floor							
Ground floor Tiles full				181	7.7		1394
to area				181	7.7		1394
to bedrooms				45	7.7		346
to area				45	7.7		346
Ground Floor							
Ground floor				170	7.7		1309
to area				170	7.7		1309
Roofing							
Roofing				1	2000		2000
to area				1	2000		2000
Roofing							
Roofing				1	2000		2000
to area				1	2000		2000

BUILDING SURVEYOR

Building Regulation Compliance Review & Permits

Towards the end of the design process, your **building surveyor** will be engaged. On more complex projects, they may be engaged earlier in an advisory role. It is their job to check the project against the current building regulations and ensure compliance. At the end of that checking process, the **building surveyor** is responsible for issuing your building permit.

During construction, your **building surveyor** will also visit the site at pre-determined stages to allow them to continually certify that the work on site also complies with the approved documentation and regulations. On completion of the project, they will issue the Certificate of Occupancy which allows you the peace of mind to move in and enjoy your newly built or renovated home.

OTHER CONSULTANTS

Other Specialist Services That You May Require

For most new home and renovation projects, the previously mentioned consultants will be all that is required. However if your project or your site is a little larger or more complex, you may need other specialists in your design team such as:

- ▶ Town Planning Consultant - to assist with difficult negotiations with Council or VCAT applications
- ▶ Interior Designer - designs the interior style of your home - an extra service provided by Melissa at Metroworks Architects
- ▶ Garden Designer - completing the whole-of-site design - an extra service also offered by Metroworks Architects qualified garden designer
- ▶ Mechanical or Electrical Engineers - for design of complex mechanical or electrical systems in the building
- ▶ Home Automation and/or Audio-Visual Consultant - to assist with the design and specification of the smart components of your new home such as computer networking, lighting control, home theatre and sound systems.
- ▶ Pre-Selected Builder - very helpful to give you time to get to know them while they provide you with cost planning advice and their extra expertise on "build-ability"



COSTS

How Much Do Specialist Consultants Charge?

Like most elements of a building project, the cost of your consultants will largely depend on the size and scope of your project. As you might expect, a larger and more complex project is likely to require more complex solutions and consequently more time and expertise to design and document those solutions. Likewise, a small and simple project is not likely to generate the same workload for your design team.

As a very rough guide, a typical new home project may generate specialist consultant fees (excluding architect's fees and statutory charges) of between 1.0 - 2.5% of the construction cost. Of course that figure is provided as an estimate only. Your architect will help you source accurate proposals from the expert consultants who they recommend before you engage those specialists on your project.

As key members of your design team, specialist consultants provide you with invaluable insight, advice and expertise on all aspects of your project. Together with your architect they will ensure that you can reach your end goal - a safe and secure new house.



What's my role with these specialists?

Your architect will advise you on which specialist consultants you will need to engage for your project. They will also provide you with recommendations to consultants they have previously worked with that would be suitable for your project.

Although your architect will usually be responsible for the direct communication with your consultants, as well as co-ordinating and directing their work, they will also keep you fully informed of their findings and their progress throughout the course of the project. Each consultant will be engaged directly by you, so you will be directly responsible for their payment.

So...is it time to get your project started?

Thanks for taking the time to review this guide on **Specialist Consultants**. Now that you have a clearer understanding who will make up your design team, you may be ready to get started on your new home or renovation project.

Melissa is here to help you with any questions you may have about specialist consultants or anything architecture and building related. So please don't hesitate to contact **Melissa Fleming** at **Metroworks Architects** for some friendly advice.



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